



The Solutions Network

Rochester, New York

Energy Savings Performance Contracting (ESPC)

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Overview



- **Energy Savings Performance Contracting (ESPC); Definition and Need**
- **DOE SUPER ESPC Program**
- **USACE Huntsville, DOD ESPC Program**
- **Lessons Learned/Questions and Answers**

Energy Savings Performance Contracting



Definition: A contracting method where the contractor provides capital energy improvements and maintains them in exchange for a portion of the energy and energy-related savings generated.



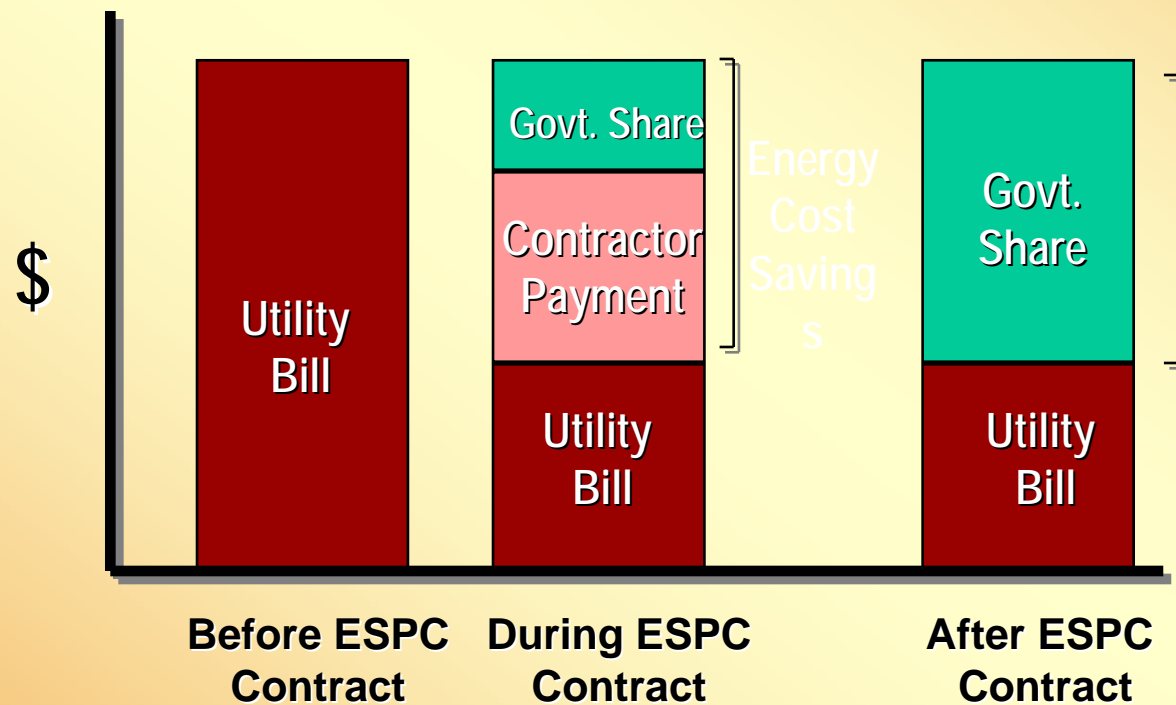
EPACT, Executive Order 13123



- **Reduce 1985 energy consumption by 35% by 2010.**
- **Demonstrate energy technology (showcases).**
- **EO 13123, Section 402: Agencies shall maximize use of available alternative financing mechanisms, including ESPC.**
- **Reduce greenhouse gas emissions 30% below 1990 levels by 2010.**



How ESPC Works



Project Costs Paid From Existing Utility / O&M Budgets

Eligibility Requirements (to use DOD/DOE contracts)



- **You must be:**
 - A federal agency with government owned facilities
 - No leased facilities
 - Located within a DOE or DOD region, or international federal facility (DOE tech specific)



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DOE SUPER ESPC PROGRAM

Definition of Super ESPC



- ☞ Covers all facilities in a geographic region
- ☞ Standardizes general terms and conditions
- ☞ Multiple award IDIQs to cadre of ESCOs
- ☞ Allows for revision of IDIQ terms by agency in delivery orders
- ☞ Projects executed by agency delivery orders placed against the IDIQ

The Two Types of Super ESPC



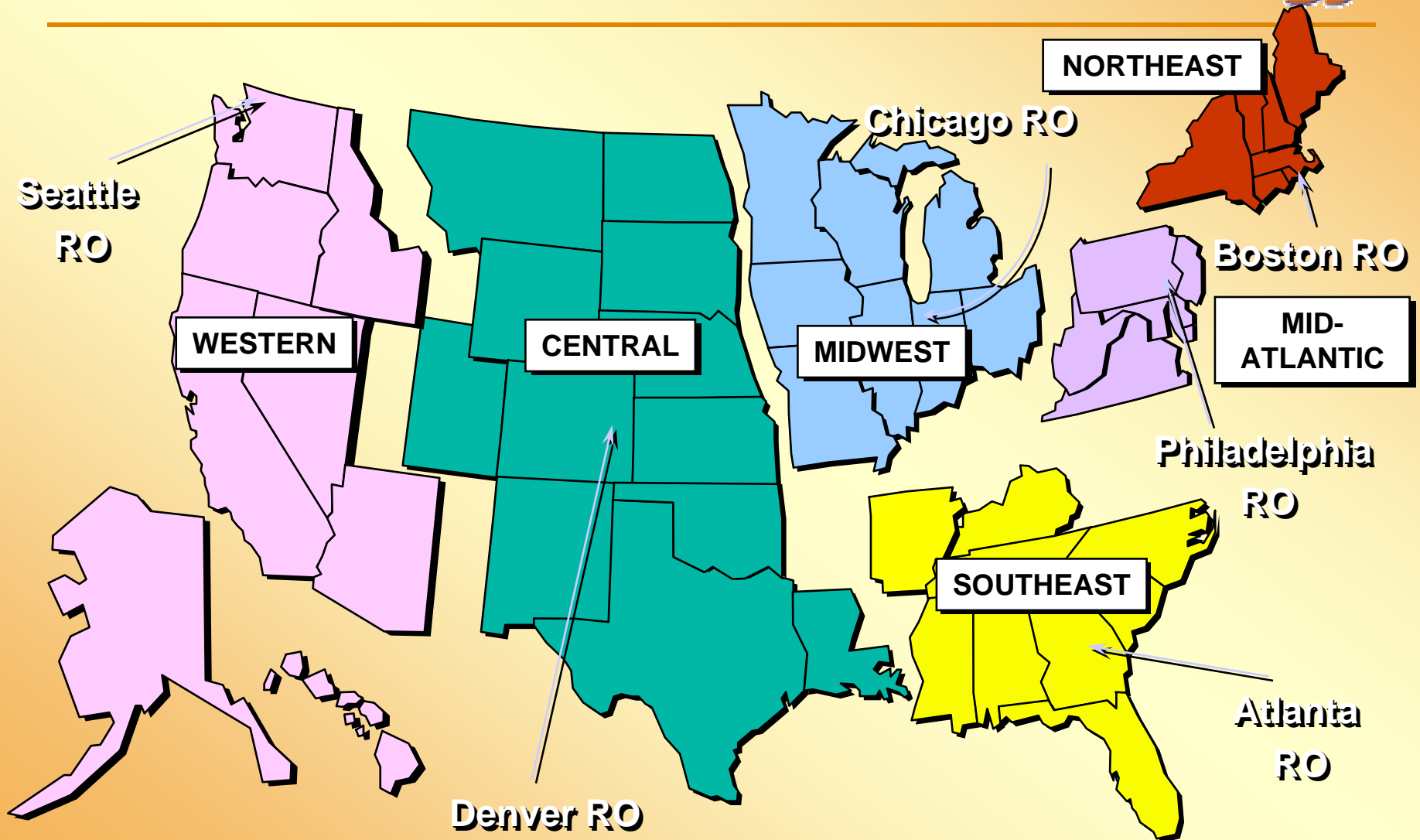
- ➡ **Regional (by DOE region)**
- ➡ **Technology Specific (international)**
 - ➡ **Geothermal Heat Pumps**
 - ➡ **Photovoltaics**
 - ➡ **Thermal Solar**
 - ➡ **Biomass and Alternative Methane Fuels**

DOE SUPER ESPC PROGRAM



- Regional and Tech-Spec Awards in place with 25 year delivery order terms available
- Permits agencies to issue delivery orders without up-front capital outlay
- Provides DOE CO/COR and PM support throughout process at no charge
- Provides project facilitation services upon agency request and Interagency Agreements. Standard package is \$30,000.00 but can be adjusted to fit agency's needs.
- Provides free Training workshops on ESPC itself, and how to issue delivery orders against contracts
- 127 agency awards to date, since 1998, with \$580 million in investment
- 78 Additional projects are currently Contractor Identified approved and in process

Super ESPC Regional Areas



How to Pick the Contractor

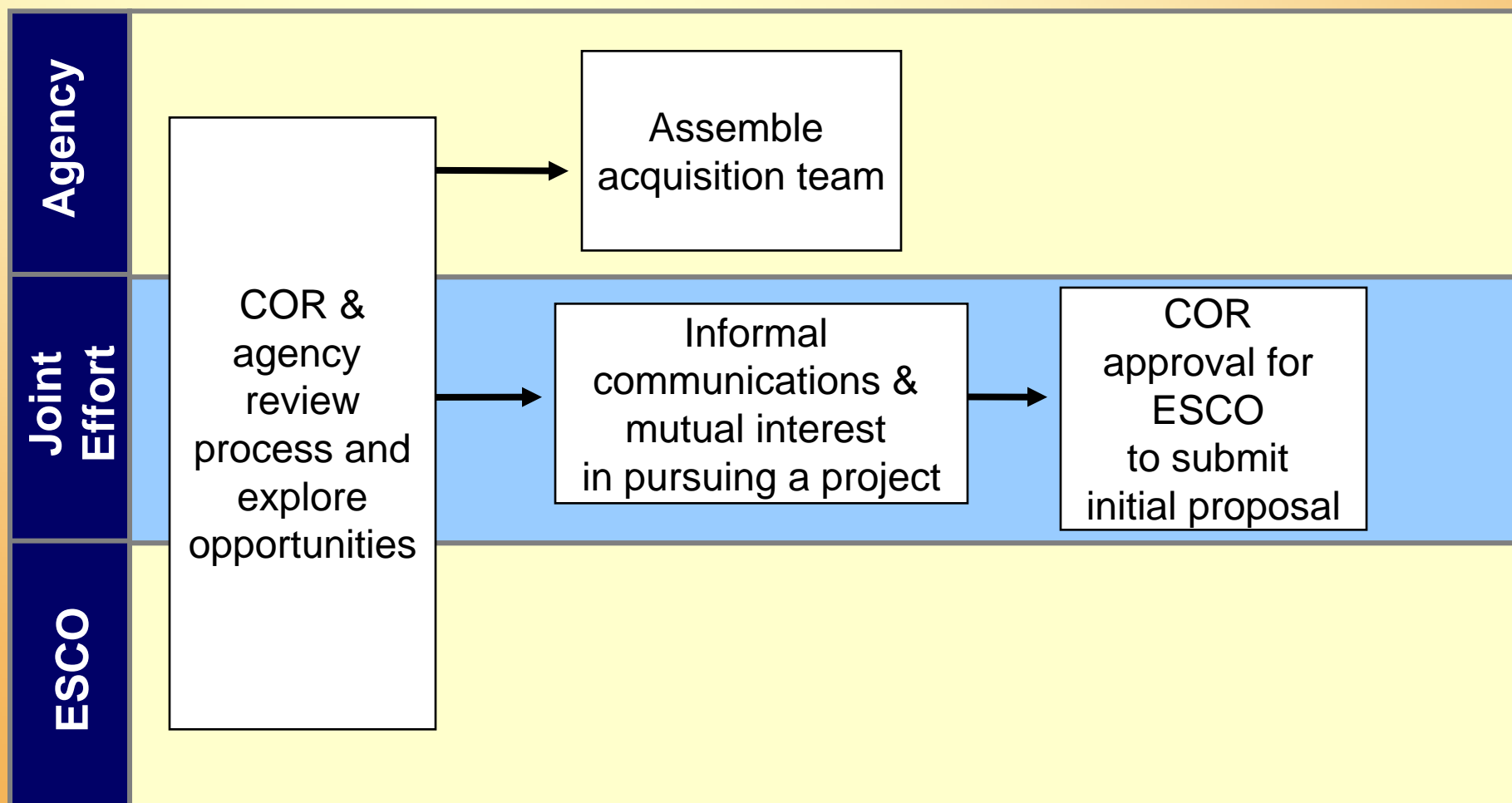


- Agency Decision
- Based on review of qualifications, past performance/references/ESCO interest/etc.
- Agency need not consider all eligible ESCOs (except DoD – needs to comply with DFARs section 803)
- No protestability of decision/no complaints to date
- ESCO chosen provided CI approval by DOE COR before any proposal

Phase 1: Project Planning



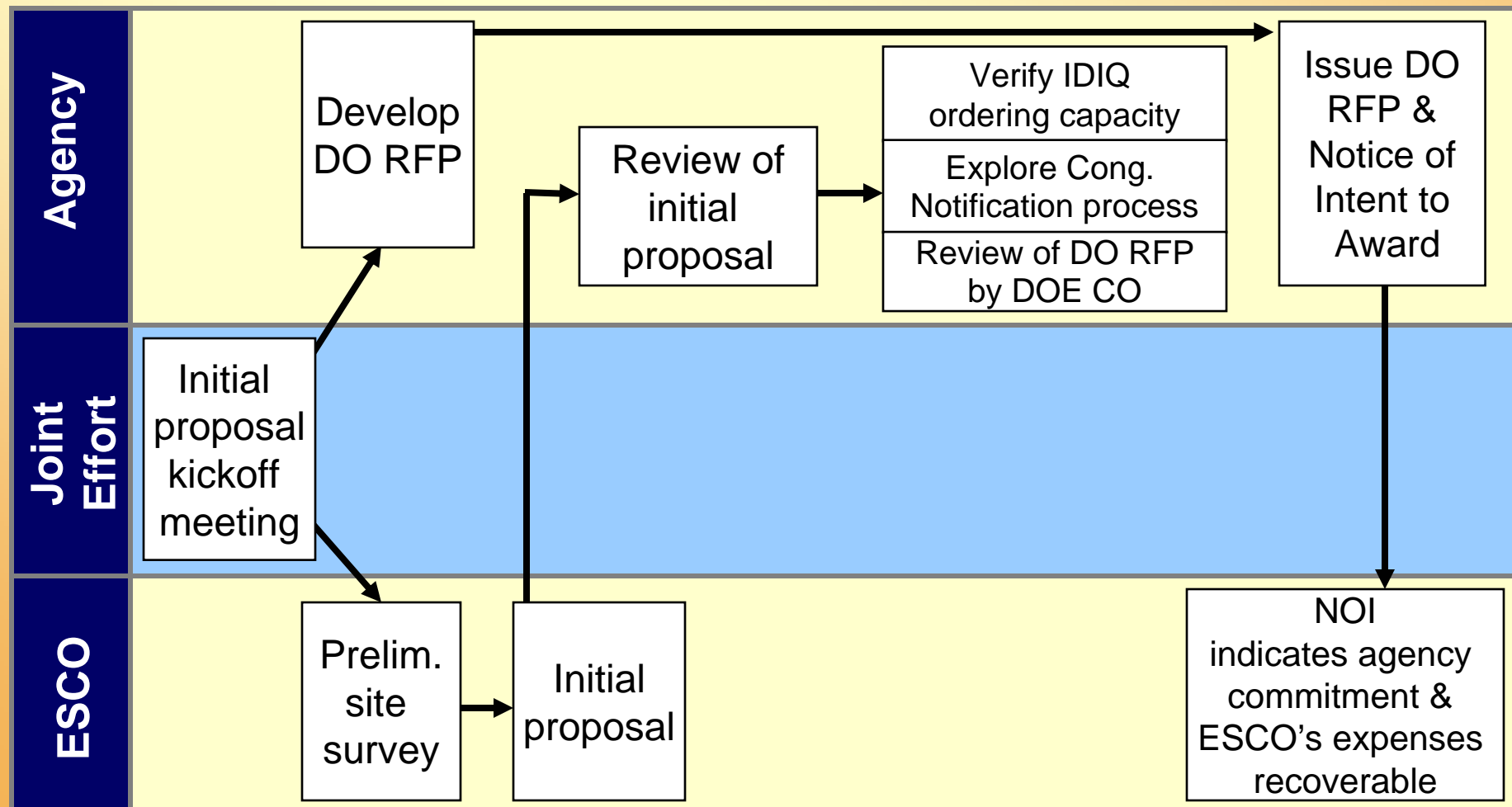
Explore Opportunities, Assemble Acquisition Team and Plan



Phase 2: Initial Project Development



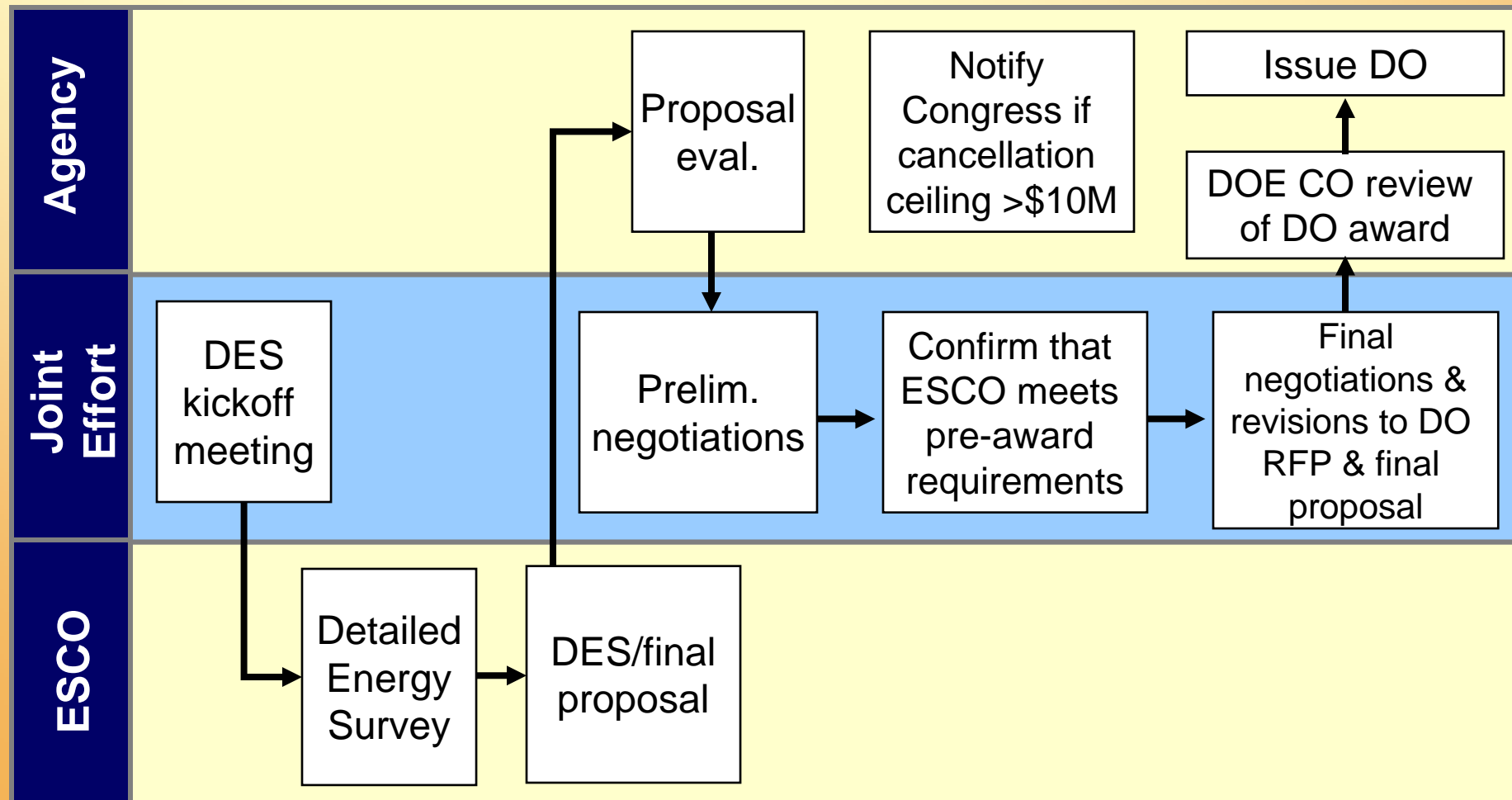
Select an ESCO and Begin DO RFP



Phase 3: Negotiating and Awarding the Final Delivery Order



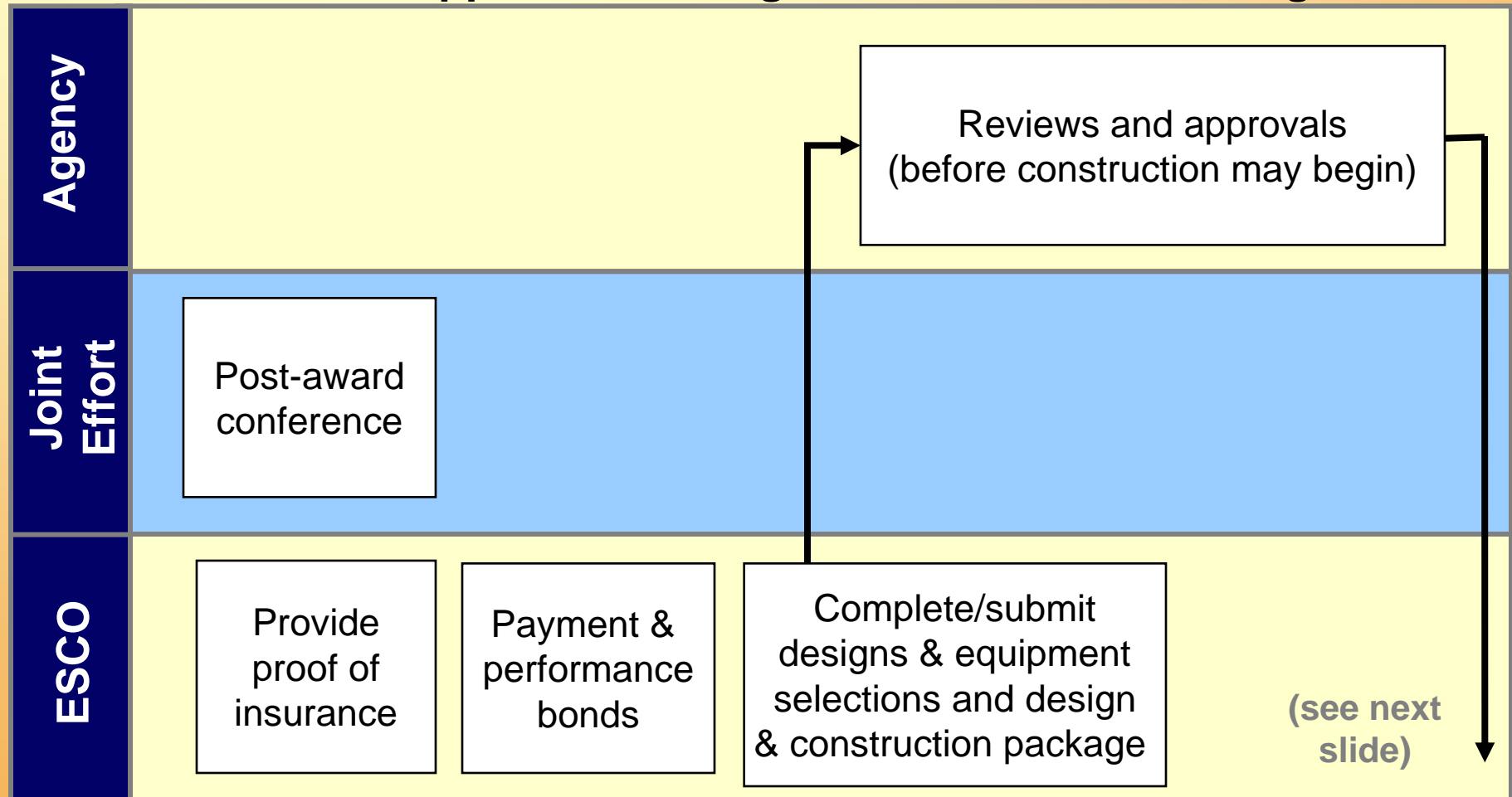
Negotiate and Issue Final Delivery Order



Phase 4: Implementing the Delivery Order



Review and Approval of Design & Construction Package

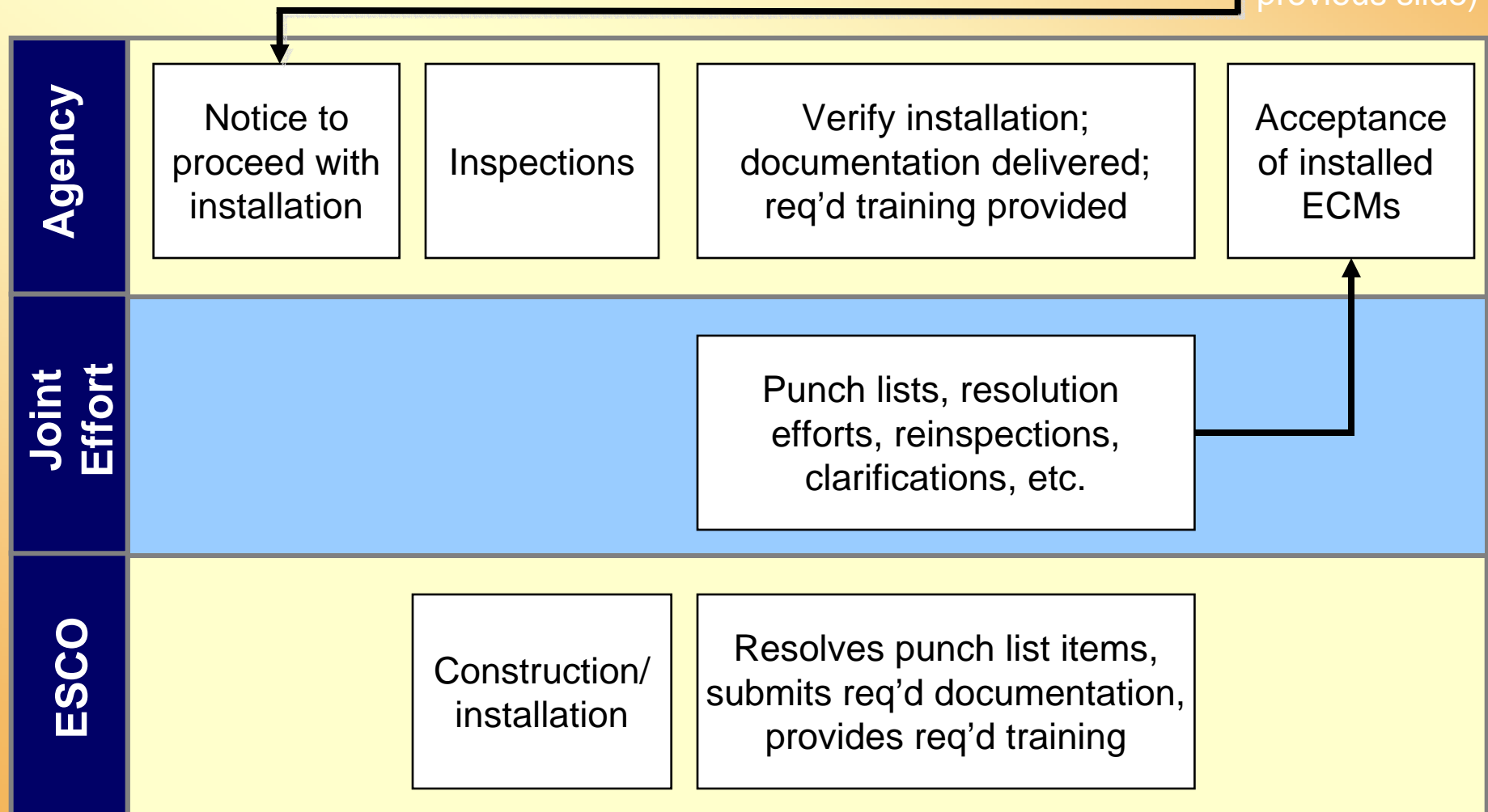


Phase 4: Implementing the Delivery Order



Installation, Construction Period & Project Acceptance

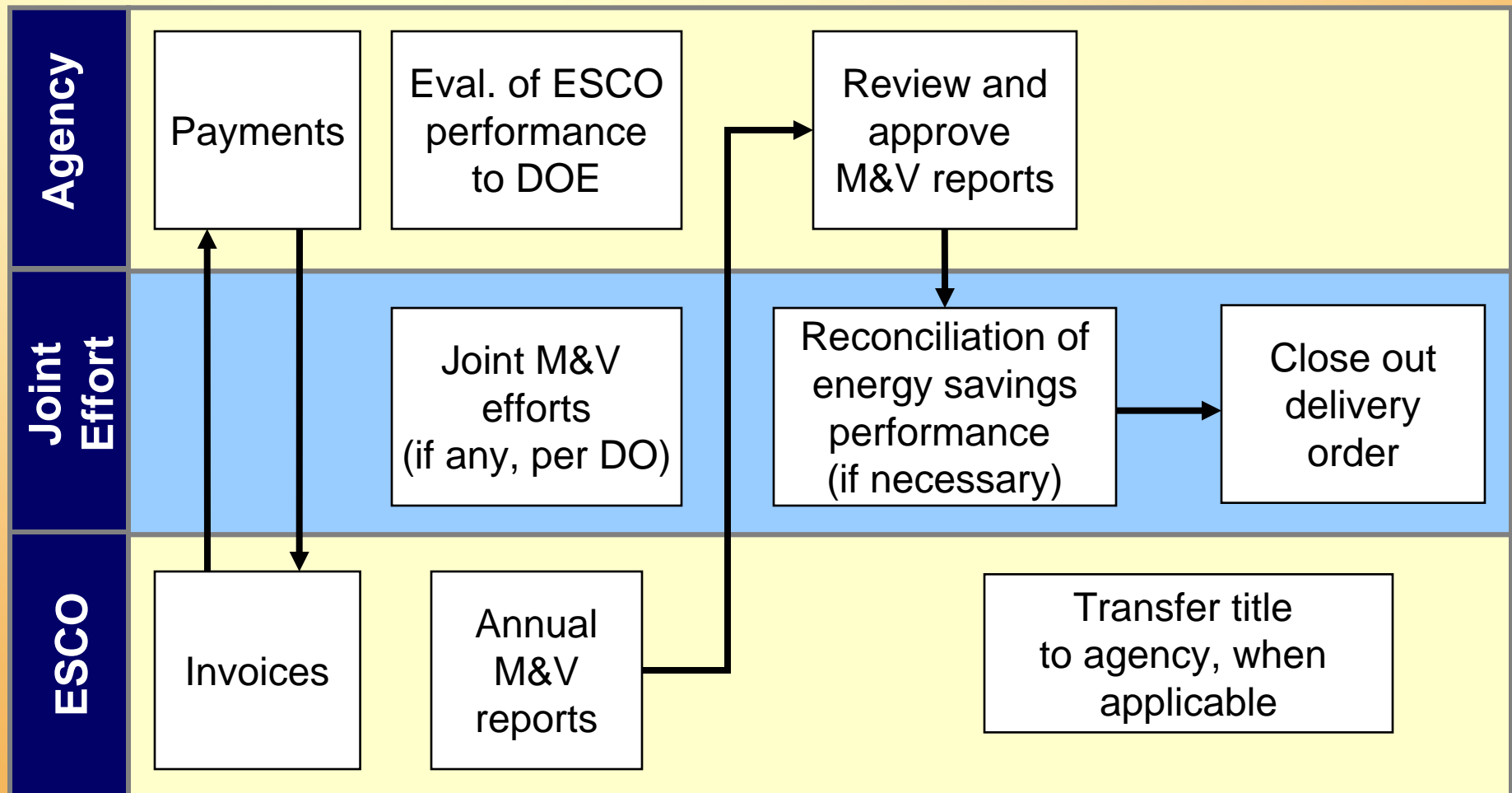
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Phase 4: Implementing the Delivery Order



Performance Period



Lessons Learned



Review project after 1 or 2 years of operation.

Does project perform as expected ?

- **Did contract vehicle work ?**
- **Is customer happy ?**
- **What would we do different ?**



Lessons Learned

What would we do different ?



- **Documentation of facility points of contact in proposal & M&V reports ?**
- **Witness of M&V testing ?**
- **Contact customer more often after project acceptance ?**
- **Insure that M&V process is adequately detailed in the proposal ?**





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Energy Savings Performance Contracting (ESPC)

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Overview



- **USACE Huntsville, ESPC Program**
- **Lessons Learned/Questions and Answers**

Why Energy Saving Performance Contracting ?



- **Declining budget for installation of state-of-the art, energy efficient equipment and the replacement of failed and failing systems**
- **Fewer maintenance personnel**
- **Preventative maintenance no longer possible**



The Value of 3rd Party Financing



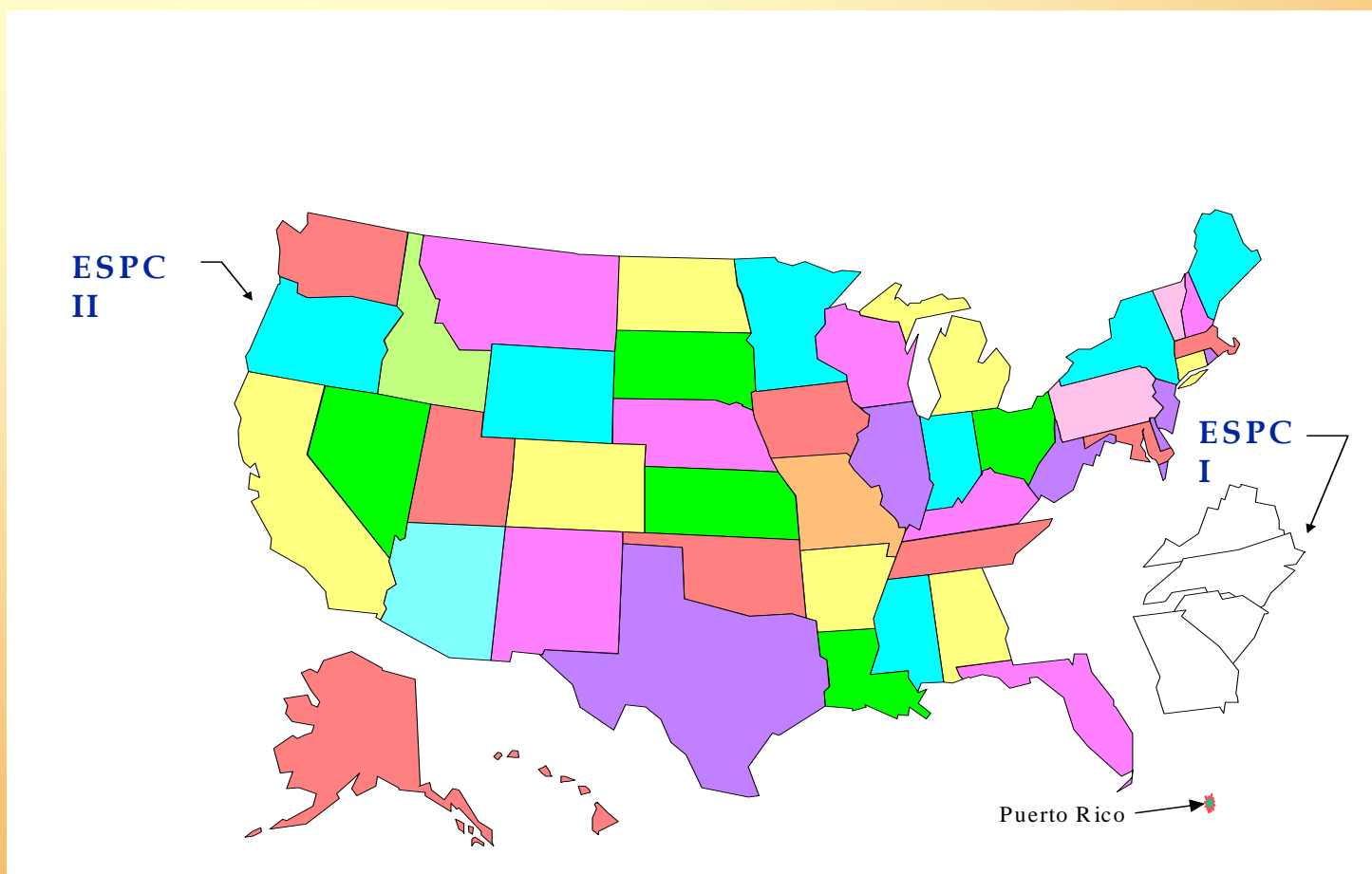
- **FACT:**
 - 3rd Party financing will eventually cost more than directly funding projects due to the compounding value of interest
 - It does allow you to obtain new energy- efficient infrastructure with \$0 additional appropriated funding

Corps of Engineer's ESPC Program



- Over 18 years of experience in business
- ESPC team essentially in one building - produces synergistic results for customers
- Ability to use national and international Corps assets to leverage customer support
- Over **\$400 Million** in ESPC awards (investment) and over **\$118 Million** in avoided costs to date

Corps of Engineer's ESPC Program

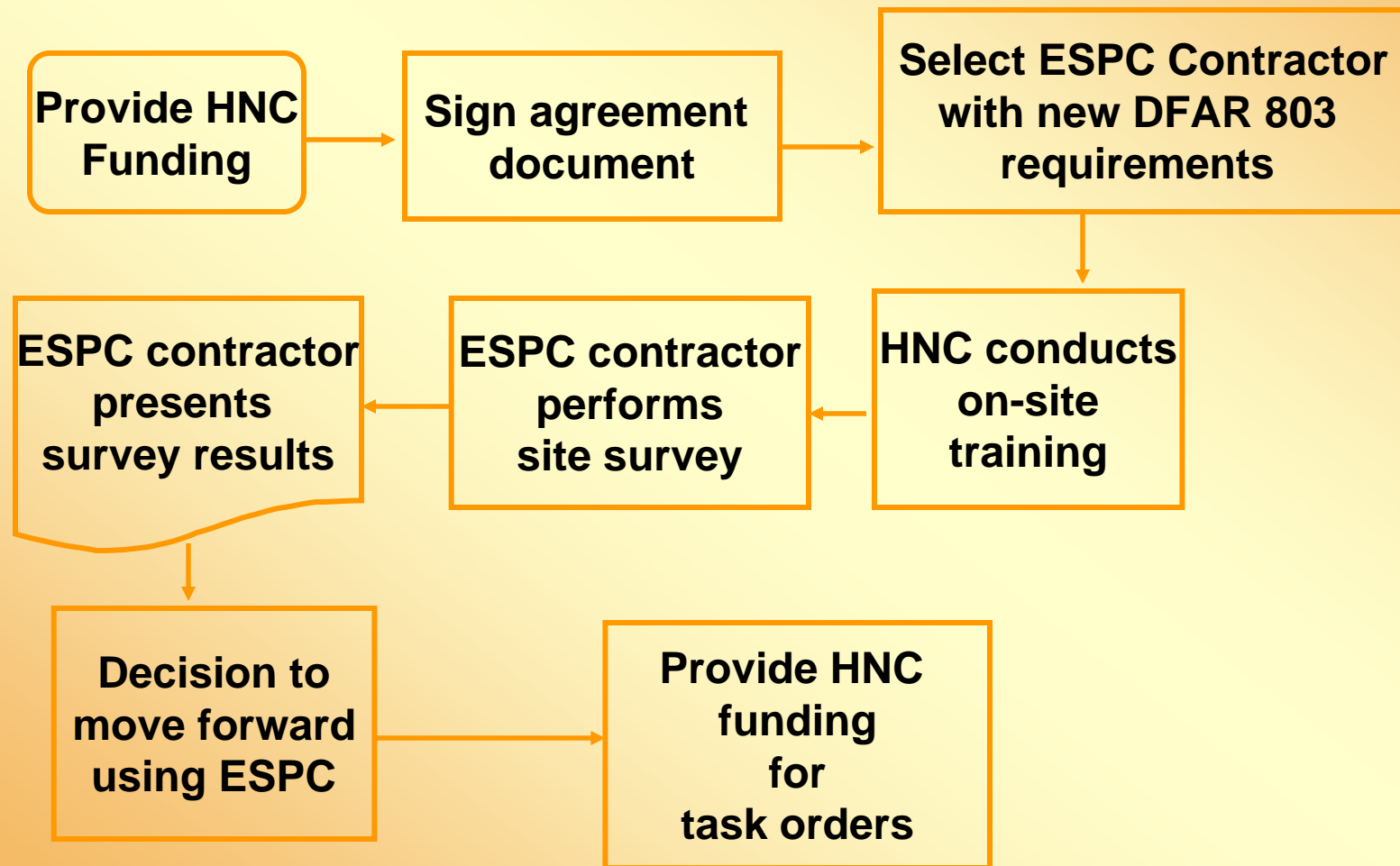


Corps of Engineer's ESPC Program



- **Corps of Engineer's cost structure:**
 - Labor & travel costs are not pre-priced
 - Provide cost on project by project basis
 - Full “**turn key**” support (technical, legal, contracting, project management)
 - Contractors provide an estimate of their investment by project

ESPC Startup Process



Contractor Selection DFAR 803



- **Customer submits customer survey with request for HNC's services**
- **Contractors will compete to implement ECSMs for 3 years.**
- **Contractors provided the following info:**
 - **Utility Rates for the site**
 - **Types of projects site is interested in**
 - **General Installation Data**
 - **Building types and locations**

Contractor Selection DFAR 803

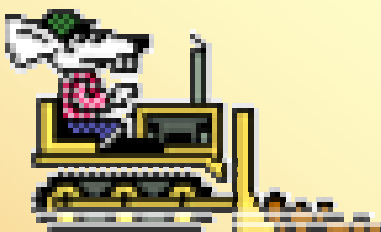


- **Contractors develop an oral/written presentation on potential ECSMs.**
- **Evaluation factors**
 - **Cost**
 - **Experience**
 - **Past Performance**

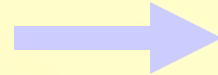
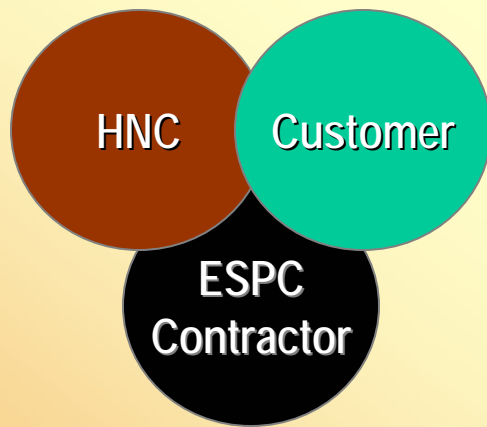
Site Survey Results



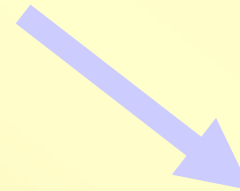
Project Description	Contractor Investment	Submit for Review	HNC Cost to Award	Projected Award Date
1 Upgrade Lighting	\$1,250,000	Mar 23, 2001	\$31,250	May 14, 2001
2 Boiler Upgrade	\$750,000	Jun 18, 2001	\$18,750	Aug 1, 2001
3 Electric Motors	\$800,000	Jul 22, 2001	\$20,000	Aug 30, 2001
4 Gas Heating	<u>\$1,200,000</u>	Sep 14, 2001	<u>\$30,000</u>	Nov 25, 2001
	\$4,000,000		\$100,000	



Using HNC ESPC Contracts



**Team puts together
ESPC proposal**



**Customer and HNC review
ESPC Proposal**



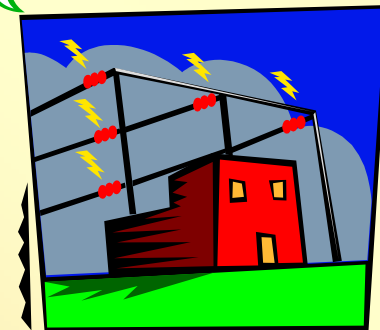
Using HNC ESPC Contracts (Cont.)



An acceptable proposal is awarded as a task order under HNC's ESPC Contracts



After Government concurrence that the terms of the task order have been achieved, the contractor may begin receiving payments



Resource Efficiency Manager



Duties

- Energy Manager Support
- Develop energy policies and implementation plan
- Develop Energy Awareness Program and Training
- Energy Accounting and Rate Analysis
- Energy Audits and Project Development
- Energy Program Support
- Apply for Rebates and Grants

Resource Efficiency Manager Funding



**The following methods are available for
funding the REM:**

- 1. Installation provides funding from O&M budget**
- 2. REM costs funded through existing energy savings projects**
- 3. O&M funding combined with energy savings created by the REM**

Lessons Learned



Review project after 1 or 2 years of operation.

- **Does project perform as expected ?**
- **Did contract vehicle work ?**
- **Is customer happy ?**
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Lessons Learned

What Would We do Different ?



- Documentation of facility points of contact in proposal & M&V reports ?
- Insure that M&V process is adequately detailed in the proposal ?
- Participate in pre-construction meetings ?
- Contact customer more often after project acceptance ?
- Witness of M&V testing ?



Questions and Answers

